CHAPTER 5

EFFECTIVE COMMUNICATIONS

INTRODUCTION

The ability to communicate effectively is essential. Communicating is more than speaking; it involves your entire presence. How you present yourself has a great deal of impact on your students' interest and desire to learn. As a Navy instructor, you must be able to communicate your knowledge, skills, and experiences to the students in order to facilitate the learning process. How you communicate often has more impact than the content of your message. The skills and techniques explained in this chapter will assist you in strengthening your ability to communicate effectively.

EFFECTIVE COMMUNICATION PRINCIPLES

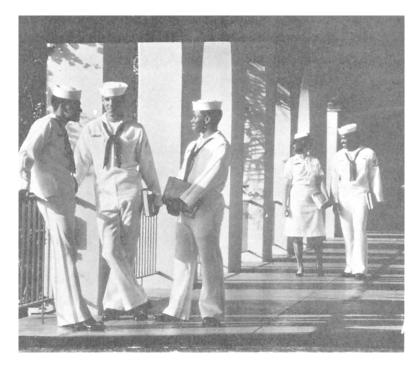
The purpose of effective communications in a training environment is to ensure students accurately understand the material presented by the instructor. There are basically two principles you need to understand that have to do with communicating effectively: (1) the identification and removal of barriers and (2) the communication process itself.

BARRIERS TO EFFECTIVE COMMUNICATION

The existence of certain barriers increases the potential for poor communication. By being aware of these barriers, you can reduce them and enhance the clear understanding of your students.

Lack of Common Core Experience

One barrier is the lack of common core experience. You are unlikely to find any group in which students have the same common core experience. For example, if you say that a kiwi tastes like a kumquat, students who have tasted one would have the experience to make the proper relationship.



However, for the students who have tasted neither, the comparison would have no meaning. To prevent that problem, determine student experience level before you prepare your lesson. Then check for understanding as you use examples and analogies with your explanations.

Overuse Of Abstractions

Abstractions are concepts, ideas, or words that are not directly related to the subject being discussed. To avoid confusion you should speak in concrete terms--be specific. Be aware of the background and experience level of your students and use appropriate terms and examples. Remember, you will normally have more experience in the subject matter than any of your students, so you have the responsibility of ensuring understanding. This requires that you not only present the information, but also that you check to ensure the students understand exactly what you intended.

Fear

Fear may be one of the greatest barriers to effective communication. The fear of showing ignorance, fear of disapproval, fear of losing status, and fear of judgment are common barriers. Many times, students will have anxieties or fears about their abilities. Students may hesitate to take part in your discussions because they have a lack of confidence and are afraid they will appear ignorant. That, in turn, brings about a fear of judgment and a fear of losing status in front of their peers.

Try to understand your students' fears. Provide a threat-free learning environment by being encouraging and nonjudgmental of the students. Remember how long it took you to learn your subject matter. Take the time to recognize the individual differences in your students so that you will know how to motivate them.

Since you have control of the class, you must direct the class energy in a positive direction. Do not allow fellow students to make fun of or exhibit disapproval of a struggling student. Avoid embarrassing any of your students or offending human values. Follow the basic principle of motivation by giving them positive feedback.

Environmental Factors

Environmental factors such as noise and temperature may interfere with the communication process. Obviously, noise is a barrier to hearing what is being said. If students are overly hot or cold it may be difficult from them to listen attentively. However, more subtle factors may also affect the communication process. The color of the walls, uncomfortable seats, the location of pictures or illustrations, and the arrangement of students in relation to the instructor may all become barriers to effective communication.

You should constantly strive to identify and eliminate barriers to effective communication. Some will be obvious while others maybe very difficult to detect. Your awareness of barriers, along with a knowledge of the communication process, will assist you in communicating effectively.

THE COMMUNICATION PROCESS

The communication process consists of a message being sent and received. The message may be verbal or non-verbal. The same basic principles apply whether humans, animals, other forms of life, or combinations of these are involved. Your challenge, as an instructor, is to not merely communicate with your students--but to communicate effectively.

Effective communication involves a message being sent and received. Added to this however, is the element of *feedback* to ensure that the message sent was received exactly as intended. This concept may be illustrated using the three-step communications model (fig. 5-1).

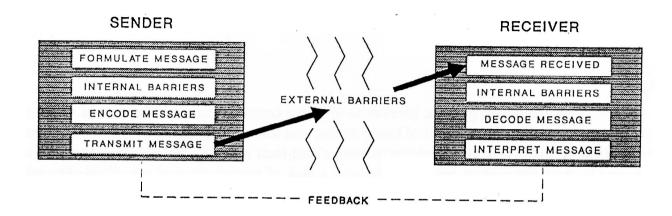


Figure 5-1.—Three-step communication process.

Sending The Message

There are four elements involved in sending a message. First, as the instructor (sender), you formulate the message you intend to communicate. Next, you consider possible barriers that may affect the message. This includes your experience, the terms you will use, and even your feeling toward the subject or the students. External barriers such as noise must also be considered. Third, you encode the message; that is, you put the message into the words you want to use. Last, you clearly communicate (send) the message.

Receiving The Message

There are also four elements involved in receiving a message. The students (receivers) will first hear and/or see the message you sent. Second, the message is affected by external barriers, if any, and the students' own internal barriers. Possible internal barriers may include the students experience level, their understanding of the terms used, their attitude toward the material, or the way they feel about you. Third, your students decode the message through the use of mental images. For instance, when you say the word *circus*, the receiver does not "see" the letters that form the word. Instead, a mental image of some sort appears. How many different mental images might arise among your students for this one word alone? A clown, a

big top, lions, acrobats, and so forth. Fourth, the students interpret the message. Clearly, at this point in the process there is no way for you to determine that all of the students received the message you intended. To determine this, you must get feedback.

Feedback

Feedback, which may take several forms, provides essential information about your success in communicating the message. To get feedback, have the students respond to oral questions and encourage them to ask questions. The students' non-verbal behaviors also provide important clues as to their understanding of the material. Facial expressions and body movements often indicate when students are unsure about the meaning of your message. You should be careful in accepting a "yes" response when you ask "Do you understand?" Obtain meaningful feedback by asking questions that require the students to provide answers which indicate that they in fact do understand exactly what you intended.

EFFECTIVE COMMUNICATION SKILLS AND TECHNIQUES

There are many skills and techniques you must master to bean effective communicator and instructor. Many of these skills you already possess, all that is required is that you use them to their best advantage. Others, you need to learn and practice.

LISTENING

Listening is one of our most important communication skills. It is an active process of hearing and understanding that demands concentration and attention. Both you and your students have responsibilities in the communication process.

You must ensure that the learning environment is free of distractions that might interfere with the students' ability to listen. Be alert to the non-verbal behaviors of your students. Facial expressions reveal much of what is happening in the mind of a student. A quizzical look indicates some misunderstanding has occurred or a question needs to be addressed. A student leaning slightly forward and maintaining good eye contact with you is probably interested and sincere about learning. An affirmative head nod indicates approval, agreement, or understanding. Conversely, eye contact out the window or someplace other than the front of the room may indicate boredom or lack of interest. Fidgeting in the chair or a slouched posture may also bean indication of something other than effective listening. Raised hands and relevant questions are sure signs that you are communicating effectively. Learn to determine if students are listening by the type of feedback they provide. Effective listening depends on motivation, and you are the prime motivator in your classroom.

Students should arrive for instruction ready to learn. They should participate and ask questions as they arise. Students must understand that they have responsibility for their own learning. This requires active listening on their part.

EFFECTIVE INSTRUCTOR DELIVERY TECHNIQUES

Delivery style has a major impact on student motivation and determines to a great extent how well students listen. Studies have shown that spoken words alone account for only seven percent of the impact of the message. The following Factors are important considerations in your delivery of instruction.

Articulation

Articulation is simply understandable speech. You can achieve good articulation in two ways. First, enunciate; speak clearly. Second, pronunciate; accent syllables and reproduce consonant and vowel sounds in conformity with the accepted standard--the dictionary.

To be a good speaker, make crisp, distinct enunciation your goal. Avoid slurring and mumbling. Avoid slang such as jist, git, gonna, whut, watcha, or hafta. In rehearsal, exaggerate your enunciation beyond what is required in normal speech. Apply the principle of sharpened enunciation not only in your classes but in ordinary conversation. Make it a habit.

If you have a regional accent, such as a Southern drawl or a New England twang, don't try to eliminate it--make the most of it! It's part of your personality. A slight accent is pleasant and adds interest and personality to your speech. However, be sure that people from other parts of the country can understand you.

Grammar

Grammar concerns the correct usage of the spoken or written word. It is like a code. When you use the code correctly, the message comes through clearly and quickly. But when you make encoding errors, the one who receives the message has to labor to extract the precise meaning. Sometimes your message never comes through exactly right. However, as an instructor, never commit glaring grammatical errors like "him and me is going," "I seen," "he give," or "it run."

Rate Of Speech

As a speaker, you should neither talk at a slow, plodding rate that puts your listeners to sleep nor rattle off words so rapidly that they run together. As a rule, speak fast enough to be interesting yet slow enough to be understood. Just as a good baseball pitcher keeps the batter alert by changing the speed of the ball, take advantage of a vocal change of pace to hold the interest of your audience.

Your rate of speech should be governed by the complexity of the thought, idea, or emotion you are communicating. Use a fast rate for joy, excitement, or vigorous action. Use a slow rate for a deliberate or methodical presentation. Add emphasis by either slowing or speeding your rate. The normal rate of delivery is 125 to 150 words per minute.

To improve common rate difficulties, observe the following suggestions:

Slow, ponderous rate. Force yourself to think faster so that you can speak faster. Using a tape recorder, read aloud and interpret the meaning of the words by the rate at which you speak them. Then play back the recording. If your rate is still too slow, record the same

reading selection again but force yourself to use a faster rate of speech to cut down the total playback time.

Fast, machine-gun delivery. Curb your impatience to blurt out ideas. Take time to make them clear. Force yourself to slow down. Recognize the listeners' need to absorb ideas; give them time to do so by saying words clearly and by pausing longer between ideas. Read aloud, observing the marks of punctuation. Express the meaning of the words carefully at the rate that fits your interpretation. Taking care to enunciate more precisely will generally slow your rate.

Halting, choppy rate. Concentrate on speaking complete ideas or sentences. Take a deep breath before you begin a sentence; breathe between, not in the middle of, ideas or phrases. Sometimes a choppy rate results from tenseness, nervousness, or lack of familiarity with the subject matter.

Pauses. In writing, punctuation marks separate thoughts and ideas and give the desired meaning and emphasis to words. In speaking, pauses serve the same functions to a large degree. You may use pauses to gain humorous, dramatic, or thought-provoking effects. Use them as a vocal means of punctuating for effect. Proper use of pauses gives listeners a chance to absorb ideas and gives the speaker a chance to breathe and concentrate on the next point. Pauses also give emphasis, meaning, and interpretation to ideas.

The following suggestions will help you overcome common pausing difficulties:

Not enough pauses. Begin by reading aloud something that you like. Force yourself to pause between ideas and at periods, commas, and other punctuation marks. Try to adopt the attitude of the artist who makes a few brush strokes and then steps back to evaluate the results.

Too many pauses. A lack of knowledge of the subject, failure to organize material thoroughly, or inadequate rehearsals usually result in too many pauses in the speaker's delivery. Study your material and organize it on paper. Then rehearse until your thoughts and words flow smoothly. Thorough familiarity with the subject matter increases verbal fluency.

Overuse of verbal connectors. Pauses, properly placed in the flow of speech, are often more effective than words. Filling pauses with meaningless, guttural sounds gives listeners the impression that you are not confident of what you are saying, and that you are not prepared to speak to them. Too many "uhs" and "ahs" may be detrimental to an otherwise effective lesson presentation. To improve on this difficulty, use the same techniques suggested for eliminating too many pauses and leave out the "uhs" and "ahs."

Inflection

Inflection is a change in the normal pitch or tone of the speaker's voice. Just as musical notes become melody when arranged in different relative positions on the musical scale, your voice becomes more interesting and words more meaningful when you use changes in pitch. Using inflection can increase the emphasis on certain words.

The following example illustrates how inflection on different words changes the meaning of a question. Say the question to yourself, raising your pitch (but not your volume) on the underlined words, as indicated:

What am I doing?
What am I doing?
What am I doing?
What am I doing?

Inflection is the key to expression of mood. It can be emotional, persuasive, or convincing. Using inflection can move an audience to tears or laughter and create a lasting impression. Without inflection, the audience may fall asleep.

Like pauses, inflection is a way of punctuating speech; it can put the question mark at the end of a question, make a statement of fact more positive, or help to put an exclamation mark at the end of a strong statement. Inflection is the principal difference between just saying words and speaking ideas with meaning.

Try the following suggestions to improve inflection:

Read aloud and communicate your emotions. Inflection conveys feeling and meaning. However, feeling also produces good inflection. As an instructor, you must show your feeling about what you say. To practice using inflection, read aloud and communicate your emotions. Using a tape recorder is a good way to improve inflection because you must communicate emotion entirely through your voice; gestures or visible facial expressions provide no help.

Downward and upward inflection. Generally, downward inflection at the end of a sentence expresses conviction. However, downward inflection within the sentence itself gives a sense of finality to the thought and creates a mental break in the listeners' thoughts. Use slight upward inflection within the sentence to indicate that the thought is not yet complete; that serves to bind ideas together and to give unity to the thought. Use upward inflection at the end of a sentence only when you ask a question or imply uncertainty.

Force

Forceful speech combines the volume or carrying power of the voice with the demonstrated vitality, strength, and conviction of the speaker; it includes the proper placement of stress or emphasis on key words and phrases. Like rate, pauses, and inflection, force is a way of conveying conviction, of giving meaning, or of adding emphasis. Yet, unlike rate, pauses, and inflection, it cannot be set apart distinctly. Force involves rate, pauses, and inflection plus carrying power, fullness of tone (or body), and proper regulation of loudness.

Listeners will not respond to a speaker who shouts and is insensitive to their feelings. Neither will they be convinced by the cool, detached manner of a speaker who is consistently calm, quiet, or patronizing. To communicate, you must awaken reactions and feelings in your listeners.

Knowledge of the subject and of the sequence in which you plan to present ideas will help you to calmly lead the thoughts of your audience. You can then drive home a point with power and

let silence underline the significance of your words.

Through your gestures, voice, movement, eye contact, and choice of words, you can convey force to your listeners. But your listeners will neither hear you nor see you unless you project words and actions with a vitality and strength of conviction. Force is not loudness, shouting, wild gesturing, or vulgar language. Force is knowing what you want to say and then saying it with implicit firmness and undeniable confidence.

The following common difficulties with force have accompanying suggestions for improvement:

Lack of volume. To increase volume, select someone in the back of the room and concentrate on making him or her hear you. Rehearse in an empty classroom and speak to an imaginary person in the back of the room. Since these exercises will make you aware of the distance involved, they will motivate you to increase your volume. When you speak with increased volume, you will be able to feel your diaphragm working.

Dropping volume at end of words or sentences. Dropping volume usually results when a speaker incorrectly associates a drop in volume with downward inflection. Develop the habit of paying attention to the sound of your own voice so that you can judge whether you are being heard. Practice lowering the pitch of your voice without dropping the volume. Record your voice so that you can hear how you sound to others. Read aloud, and concentrate on projecting every word in a thought or idea to an imaginary listener seated in the back of the room.

Failure to give emphasis to main points or key words. To emphasize main points and key words, you must first know your subject well. Then you can communicate main and subordinate ideas by stressing key words and phrases using volume, pitch, rate, and pauses. That will result in convincing and authoritative presentations.

SPEECH IMPROVEMENT

This chapter has addressed specific ways to correct common difficulties; however, two methods will improve all aspects of your speaking voice. First, listen closely to polished speakers on television, such as popular newscasters. Their techniques of speech make them good models for study. Don't try to imitate them exactly, but study how they use their voices to give meaning to their words and emphasis to their ideas. Second, listen to yourself daily as you instruct and casually converse with your contemporaries. Make a habit of constantly evaluating how you use the speech factors listed in this section.

EYE CONTACT

The most powerful element of instructor presence in front of a class is direct eye contact with your audience. By looking directly in the eyes of each of your students, you personalize the lesson being presented and stimulate the desire for them to listen more intently. Each student should have your direct eye contact several times during an instructional period. Make and maintain this eye contact for 3 to 5 seconds. This time interval is appropriate for personal contact without being overbearing or creating some level of discomfort for individual students. Scan the entire class without developing a mechanical pattern. Avoid the common pitfall of

talking to the chalkboard or visual aid panel or to any other training aid you may be using. Maintaining effective eye contact enhances your credibility. Another important reason for looking directly at your students is to observe their nonverbal reactions to your instruction. Feedback provides you with the opportunity to judge your effectiveness and make necessary adjustments as discussed later in this chapter.

BODY MOVEMENT

Body movement is an important part of successful communication; it reinforces, emphasizes, and clarifies verbally expressed ideas. Because body movement is so easily adaptable for communicating, skilled pantomimic actors can tell complicated stones involving many characters through physical movement alone. However, your actions while instructing must reinforce rather than contradict your words. Make sure the image you present and your body movements strengthen your communication.

Movement is the motion of the whole body as you travel about the classroom. Movement attracts the attention of the listener because the eye instinctively follows moving objects and focuses on them. Movement can help you convey thoughts to your audience.

The basic rule in movement is moderation. Do not remain glued to one spot, but do not keep on the move all the time. As your skill and experience increase, your movement will become less obvious and more meaningful. Learn to modify the degree of movement to make it natural and meaningful.

Plan your movement so that you are at the proper place at the proper time. For example, when using an overhead projector with a transparency, plan movement so that you are at the machine when it should be turned on; when you need to open the curtains, plan movement so that you are at the curtain control point at the time the curtain should be opened.

GESTURES

A gesture is a natural movement of any part of the body that conveys a thought or emotion or reinforces oral expression. Your arms, hands, and facial expressions are your principal tools of gesture. Your gestures will depend to a large extent on whether your personality is vigorous and dynamic or calm and easygoing. Regardless of your personality, gestures will add to the effectiveness of your speech if you relax your shoulders, arms, and hands and concentrate on communicating to the audience the meaning and importance of your ideas. When the gesture is natural, it is effective. If the gesture is artificial, posed, or strained, it detracts rather than reinforces. Practice gestures as a natural part of your speaking manner; they should arise spontaneously from enthusiasm and conviction.

Descriptive gestures portray an object or illustrate an action. Describe the size, shape, or movement of an object by imitation. Show a vigorous punch by striking with your fist; show height by holding your hand at the desired level; show speed by a quick sweep of your arm. Pantomime a complicated or humorous movement as you describe it. Use your hands to sign a message, such as a "V" formed with two fingers as a symbol of victory.

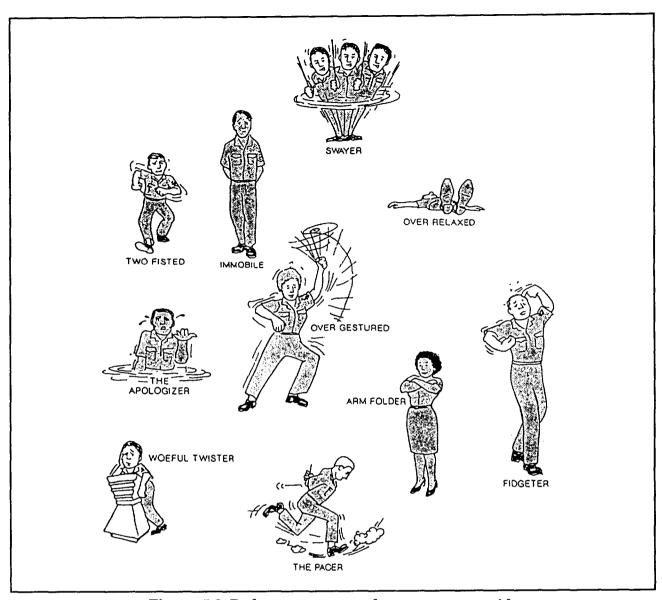


Figure 5-2.-Body movement and gestures to avoid.

Facial expression is a type of gesture. To change opinions or to inspire or interest people, your face must show what you are feeling and thinking. Facial expressions show many feelings, such as joy, dejection, anger, and poise.

The most common fault in facial expression is the deadpan face that shows a total lack of expression. Another common difficulty is the use of a constantly intense expression, usually manifested by a frown. Overcome this problem by relaxing all over; then use your intensity only on key ideas.

Finally, remember that you are neither a wooden statue nor a clown. You are a human being. The more natural you appear and act, the more you will influence your listeners. The classroom is no place for a poker face.

ATTITUDE

Your speech reveals how you feel about what you say. It has an emotional impact on others. Thus, emotion indicates how you feel about all that surrounds you--it shows your attitude. Attitude affects the words you use. The four specific indicators of a good speaking attitude are sincerity, confidence, enthusiasm, and humor.

Sincerity, from the speaker's point of view, is the apparent earnest desire to convince the audience of the truth and value of an idea. The two sources of sincerity are a personal, intense belief in your subject and a belief in the value of your subject to your listeners. The first of these



sources is ideal because intense personal belief is natural sincerity that shows in your every word or gesture. The second source is more rational than emotional. If you know your teaching material is valuable, you will present it in an honest and forthright manner. You will not rely on gimmicks or questionable reasoning to make your presentation look good.

By showing that you believe in what you say, you convince your students of the importance of the subject. Sincerity shows in a number of ways: directness of manner, facial expressions, clarity of explanation, proper combination of humility and authority, and the effective use of the voice and body to reinforce and emphasize ideas. Remember that students must see, hear, and feel that you believe in what you say.

Confidence is a personal attitude or feeling of assurance. It is belief in your ability to perform a task well. To be confident and control stage fright requires two prerequisites: knowledge of the subject and belief in your ability to speak. You obtain knowledge of a subject through research and study. Belief in your ability comes from rehearsal and experience. These requirements are entirely up to you to accomplish in your own way.

ENTHUSIASM

Enthusiasm is the outward manifestation of sincerity and confidence. From the speaker's standpoint, enthusiasm is a strong personal excitement or feeling about a cause or a subject.

Enthusiasm is not shouting; it is not phony, overdramatic speech; it is not waving of the arms and leaping about on the platform. Rather, it is the way you show your belief in your subject! How you show enthusiasm is governed by your personality. If you are a vigorous and dynamic person, you may show enthusiasm by brisk, energetic movement; sweeping gestures; a rapid rate of speech; widely-varying inflection; and plenty of vocal force. If you have a more subdued nature, you will move and gesture with less energy and speak in more measured

tones. You will use force only on the key words and ideas; make more use of the pause for effect; and maintain a calm, pleasant, but confident and authoritative manner. Most instructors show enthusiasm by combining characteristics from both of these styles.

HUMOR

You may be a sincere, confident, and enthusiastic instructor, yet still lack the humor needed for effective instruction. If you lack a sense of humor, you will seem unreal, inhuman, or very conceived. Humor shows that you are, after all, just another human being and that you have a warm, lively interest in all that goes on around you. Having a sense of humor does not necessarily imply an ability to tell funny jokes, although tasteful, relevant jokes certainly have a place in good instruction.

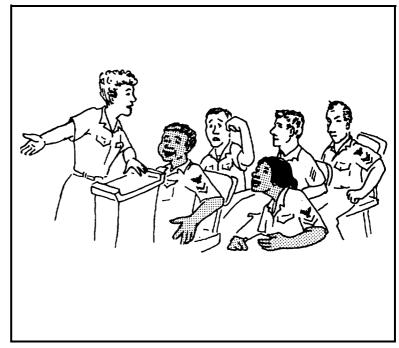
A more effective type of humor is spontaneous humor. Take advantage of unexpected humorous classroom situations that sometimes arise--make a brief comment, pause, or simply smile. Humor directed at yourself is very effective. Most people laugh when someone important is receptive to being the object of good humor.

In addition to decency, the only rule to follow in using humor is good judgment. Take care not to direct humor at a specific person. Students may resent having a classmate singled out. Be sure your humor is good natured and lightly done. Clean humor is as American as the hot dog and will often assist student learning.

FEEDBACK

Observation of your students provides important feedback that will help you in evaluating the effectiveness of your communications skills. Puzzled brows, frowns, and whispered questions between students indicate that you have not communicated effectively. The students have unconsciously shown signs of a lack of understanding.

The observation of these signs and their on-the-spot analysis is called feedback. That again underlines the importance of maintaining good eye contact with your students.



Students can also send signs of positive feedback. You may often observe students at the very moment they gain new knowledge. When you see a student's face light up, you are seeing understanding take place. This positive feedback is one of the most personally rewarding experiences of an instructor.

Feedback is important because it indicates how you must adjust your instruction to communicate effectively. If the students have obviously not learned, then you must modify your instructional approach.

Feedback makes the learning process an intercommunication between the students and the instructor. As such, it is critical to the success of the instructional mission.

ORAL QUESTIONS

For two-way communication to take place between you and the students, you must use good, thought-provoking questions throughout the lesson. The use of oral questions allows you to determine from time to time if you are maintaining essential communication. When properly planned, implemented, and evaluated, oral questioning improves effectiveness and, more importantly, student learning.

The greatest resource for enhancing your classroom instruction is the students themselves. Training is most effective and learning more permanent when the students take an active part in the process. Students need to interact with the subject matter and the instructor during the lessons rather than just at test or performance time.

The responsibility of active class participation lies with you, the instructor. Avoid over using the questioning technique of asking "are there any questions?" That does not stimulate much thought or generate productive class participation.

As an instructor, always remember that one purpose of questioning is to help students get involved in learning the material at hand. Some instructors have mastered the technique of teaching a lesson almost entirely through the use of oral questions. Questions add variety to a lesson and require active student involvement. However, questions are only as effective as the manner in which they are used. You can defeat the whole purpose of the questioning technique by using it improperly, so make sure you learn how to use questions properly.

If you don't have a natural knack for oral questioning, you can develop some degree of skill by setting yourself a goal for improvement and then practicing constantly.

Try to decrease the amount of one-way communication in the classroom by asking questions as much as you make statements. You will find that you have a natural compulsion to "tell," which is understandable. After all, that is probably what your instructors did. Studies show that in a typical classroom, someone is talking two-thirds of the time; and of that time, the instructor does two-thirds of the talking. You can see the students get only one-third of the response time in those classrooms. Through good questioning techniques, you can increase and improve the amount of student responses beyond the one-word contribution.

A key point to remember is that the intent of a question is to elicit a response. Effective use of questions will result in more student learning than any other single technique. Becoming skillful in the art of questioning will increase your effectiveness as an instructor.

PURPOSES OF ORAL QUESTIONING

The primary purpose of oral questioning is to stimulate the students to think. Navy requirements call for people who can operate complex equipment and carry out those troubleshooting and maintenance procedures needed to keep the equipment operating at peak performance. To perform those duties effectively, sailors must be trained to analyze, compare, and interpret facts, data, and methods, all of which require a high caliber of thinking.

Oral questioning also provides you with a practical means for establishing the level of instruction. Students may vary greatly in the quantity and quality of background knowledge they have acquired through previous training and experience. You must determine the level of achievement of the students before proceeding with the presentation of new subject matter. Although you may use a pretest or a questionnaire for this purpose, the quickest and simplest means is a series of oral questions.

Oral questioning has three other important purposes: First, it arouses interest in the subject matter. Second, it focuses attention upon a particular area of the subject matter. Third, it drills students on subject matter they must recall precisely, such as correct terminology, functions of parts, and safety precautions.

Use questions to achieve the following benefits:

- Discover each student's interests, abilities, and depth of knowledge.
- Arouse student interest in the subject matter of the lesson.
- Stimulate discussion, and keep it closely tied to the subject matter.
- Review and summarize important points.
- Test students' knowledge of what the lesson has covered, and check the effectiveness of the instruction.

CHARACTERISTICS OF A GOOD ORAL QUESTION

Questions that are poorly worded, vague in meaning, or ambiguous will frustrate both you and the students. Students who do not comprehend the true meaning of poorly phrased questions will hesitate longer than usual and then give uncertain answers. You may feel dissatisfied with the answers and reprimand the students for their lack of attention and understanding. The students, knowing that they have answered unsatisfactorily through no fault of their own, may lose enthusiasm and withdraw from active participation. You can avoid frustrations of this kind by planning your questions well in advance as well as carefully choosing and arranging words and phrases.

The construction of good oral questions requires three considerations; level of instruction, use of interrogative, and clarity of meaning.

Level of Instruction

In asking questions, use simple words, correct grammar, and complete sentences. Use words the students know and understand. As the course progresses, introduce new terms and more technical phraseology.

Ask questions at times that suit your presentation of course material. Plan questions that require students to think before answering. Don't use questions that give away the answer or that students can answer with a simple yes or no.

Use of Interrogative

Use the interrogatory word or phrase at the beginning of your question so that students know immediately when you are asking a question. Let's consider two examples where this is not done: (1) The two sizes of firehose most frequently used in the Navy are what? and (2) You can determine whether or not explosive vapors are in a compartment by what means?

Questions worded in this way handicaps the students in at least two ways. First, the students are expecting a declarative statement, not a question. Second, they cannot identify the meaning of the question until the final words are spoken. Note the improvement in these same questions when the interrogatory word or phrase is placed at the beginning: (1) What are the two sizes of firehose used most frequently in the Navy? and (2) By what means can you determine whether or not explosive or toxic vapors are in a compartment?

Clarity of Meaning

Avoid the use of catch or trick questions as a teaching device, especially for beginners. Make sure the wording of the question conveys to the students the true or intended meaning. The students must understand what you want, regardless of whether they know the correct answer. "Where are storm warnings flown aboard ship?" is a good question; but "Where are storm warnings flown?" fails to indicate what point is being tested.

Make your questions brief, and limit them to one thought. To include too many factors in a single question confuses the students. Ask well-stated, clearly understood questions in a normal conversational tone as part of the lesson. After each lesson, reevaluate your questions in light of how the student responses contributed to better learning.

TYPES OF ORAL QUESTIONS

Learn to use oral questions throughout the lesson. Use them in the introduction to create interest and focus attention on the subject matter and during the lesson presentation to ensure student understanding. Then use them at the end of the presentation for review and drill purposes.

Feel free to ask factual, thought-provoking and interest-arousing questions as often as you choose. Other types of questions may serve one or more useful purposes if used sparingly, but may prove ineffective if you use them too often.

Factual Question

The factual question asks for specific information; for example, "When was the first U.S. nuclear powered submarine built?" Although the primary purpose of the factual question is to help students memorize facts, it may, under certain conditions, have important secondary

purposes. For example, you could use a factual question to arouse interest, to focus attention upon certain parts of the subject matter, and to assist in determining the level of instruction.

Thought-Provoking Question

A thought-provoking question normally begins with such interrogatory expressions as "What is the advantage of," "What is the difference between," "Why is this method considered superior to," "How would you solve the problem if," and so forth. The value of this type of question is that a single question, properly used will stimulate the students to think. Prepare good, thought-provoking questions on key lesson points in advance.

Interest-Arousing Question

An interest-arousing question may sound, superficially, like a factual question. "How many Navy ships were involved in collisions at sea during the past year?" Since the question calls for an exact number, students will doubtless attempt to recall the collisions about which they have read or heard. When asking an interest-arousing question, however, you are not interested in exact numbers, exact names of ships, or exact situations. Your main purpose in asking the question is to focus the students' attention and get them thinking about the subject you are about to present.

Multiple-Answer Question

A multiple-answer question is one that has more than one correct answer. It can be used to increase student participation or cause students to think about the other students' answers. A multiple-answer question generates a high interest level and improves listening skills.

A factual, thought-provoking, or multiple-answer question may also be one that is interest-arousing. That depends upon your intention in asking the question, not upon its form or content. However, if you overestimate the knowledge of your students, a question intended to be factual may turn out to be thought-provoking. If you underestimate the students' knowledge, a question intended to be thought-provoking may turn out to be factual.

As previously mentioned, certain kinds of questions are effective if used occasionally but are detrimental if used frequently. Typical of these types of questions are the yes or no question, the leading question, and the canvassing question.

Yes/No Question

The yes or no question, of course, calls for a simple answer--yes or no. This type of question has value in arousing interest, focusing attention, encouraging student participation, and serving as a lead-in to other kinds of questions, such as "Why do you believe that to be true?" An excessive use of yes or no questions tends to encourage students to guess.

Leading Question

A leading question is one that suggests its own answer; for example, "You wouldn't smoke in the paint locker, would you?" or "The 40mm gun is larger than the 20mm gun, isn't it?" If used properly, leading questions have value in focusing attention, in arousing interest, and in emphasizing a point. You can also use leading questions to help the student think the matter through to the right answer. If you notice students groping for the right answer, ask a question that directs their attention to information they know but have overlooked in answering the question. That has value when used skillfully because it builds a student's confidence. Occasionally. use the leading question to help awkward students, saving them the embarrassment of failure in front of the class. If used too frequently, leading questions discourage any real thinking and become boring to the students.

Canvassing Question

Use a canvassing question to determine those who are familiar with a specific area of subject matter. If you are teaching damage control for instance, you may ask "How many of you have been involved in an actual shipboard fire?" A show of hands provides information about student experiences that you may find useful as your lesson progresses. It gives you a great opportunity to bring some real life examples into your lesson and to provide some individual recognition for student contributions. Canvassing questions can also help to determine class level.

TECHNIQUES OF ORAL QUESTIONING

How School Shortchange Girls was addressed earlier. Gender bias has The AAUW Report: also played a significant role in questioning techniques within the school system. As mentioned earlier, boys demand more attention and get it. When boys call out answers, teachers usually listen while the same behavior exhibited by girls is corrected. Even when boys do not volunteer, teachers are more likely to call on them than girls. Girls receive less teacher praise, fewer remedial comments on their work, and less specific comments about their performance. The implication for you as an instructor is to be aware these behaviors will continue in class unless you correct them. Set the same standards for responding to questions and enforce them uniformly. Provide remediation to both males and females in coaching them through incorrect responses. Do not spend an inordinate amount of time taking questions from males alone. Know that females may be hesitant to respond to questions, but by providing a safe environment for all your students, you will gain culturally-sensitive class and curriculum include more favorable attitudes toward other groups, a reduction in stereotyping, and increased academic achievement.

Five Step Questioning Technique

A recommended technique of oral questioning consists of five steps: asking the question; pausing; calling upon a student; evaluating the student's answer; and finally, emphasizing the correct answer. Put time and thought into making each step count in the teaching process.

The first step in good questioning techniques is to state the question. Since the intent of questioning is to provoke thought, ask the question before calling on a person to answer. That encourages each member of the class to formulate an answer. Many instructors make the mistake of calling on a student before stating the question. That allows the rest of the students to relax and not formulate an answer. When you state the question first and then pause for a few seconds, everyone will begin actively thinking of an answer. This thinking process enables students who you do not select to answer the question time to think so that they may add to the response. Identifying the respondent before asking the

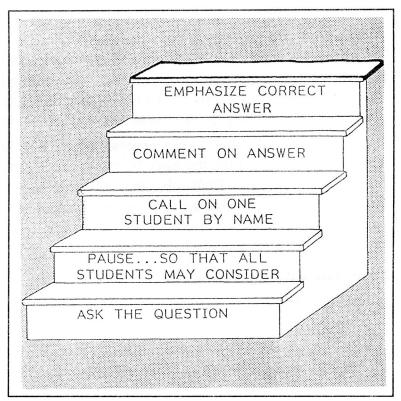


Figure 5-3.-Five step questioning technique.

question may startle and fluster some students so much that they may not be able to respond, even if they know the answer. State the question clearly, giving one central thought, by placing the interrogative word at the beginning of the statement to alert students that a question is coming. Do not repeat the question or change the wording of the question unless necessary.

After asking a question, **pause** to allow the students time to think through their answers. Vary the duration of the pause depending on the difficulty of the question and the level of the students. Most instructors fail to pause long enough after asking their questions. Calling on a student too quickly is as detrimental as calling on the student before asking the question.

After pausing for a reasonable time, **call on a student** by name to answer the question. That satisfies a basic student need for recognition. If students feel you recognize their individual efforts, they will put forth greater effort. When selecting a person to respond, consider both the difficulty of the question and the individual abilities of students. Consistently assigning a difficulty question to a slower learner will remotivate that student. Spread the questions around without establishing a predictable pattern. A predictable pattern includes calling on students either in alphabetical or seating order or calling upon a select few whose names you know. Scattering questions also prevents mental loafing. Faster learners will dominate the class if you do not control student participation. Achieve a balance between calling on volunteer respondents and nonvolunteers. Allow only one student to answer at a time, but encourage all students to participate and volunteer answers. Although you may not call upon every student, let students know you expect them to take an active part.

The next step is to comment on the given answer or acknowledge the response. That

demands a careful and quick mental evaluation of the answer for accuracy and completeness. Provide feedback to the responder and class on the quality of the answer. When a student gives an incorrect answer, be critical only of the answer and not the student. Be sure to provide positive reinforcement for correct answers. The strength of the reinforcement depends on the difficulty of the question asked and the relative difficulty level for the student selected. Do not overdo the reinforcement. A simple "correct" or "thank you" may suffice.

The fifth and last step in the process, which is optional, is to **emphasize or repeat the answer** given. Avoid the tendency to repeat each answer as that has the effect of diminishing the student's response. Remember that the student's answer has an importance for the class as well as for you. Insist that answers be clearly spoken; heard by all; phrased intelligibly; and if possible, stated in the terminology of the lesson.

Other Questioning Techniques

The following techniques may be used in addition to or in conjunction with the five step questioning technique.

- Focus on the non-volunteer students; avoid eye contact with the active participants when asking a question. This will encourage the quieter students to reply. Assign a question to a student who does not have a hand raised; then provide appropriate recognition for that student's contribution. This technique will increase class involvement, attention, and participation because all students will know you may call on them regardless of whether they volunteer.
- Sometimes you may need to prompt a student who has given a weak, incorrect, or an "I don't know" response to your question. Help the student to arrive at a correct answer by asking questions that contain direct hints or clues to the correct answer. The key to effective prompting is to begin on a simple enough level that the student can relate to the material. The questions in the prompting sequence depend on the student's previous response. To begin the sequence, refer to material the student already knows.

If the initial student response was partially correct, provide reinforcement by telling the student what was right. Then ask prompting questions until the student can give the entire correct response. If the student's first answer is "I don't know," rephrase the question or provide an example to eliminate any confusion, ambiguity, or vagueness in the original question.

Acknowledge the final correct student response in the same manner as if the student had given the correct response the first time. Do not allow the prompting technique to result in student badgering.

- Seek further clarification when a student gives a response that is poorly organized, lacking in detail, or incomplete. Do not provide the student with any hints (prompts), clues, or additional information, but ask the student to do so. Request clarification when you believe the student has guessed at an answer by asking the student to justify the answer.
 - Example: "What else can you add?"
- Use the reverse technique (answering a question with a question) to get students to think,

make associations, and discover the answer to their own questions.

Example: The student asks, "Why did the Chief give that order?" The instructor might respond, "If you were in the same situation, what order would you have given?"

- Use a redirected question to increase class involvement and provide recognition for students' answering questions. A redirected question occurs when you assign a question asked by one student to another member of the class for answering. **Note:** Never use this technique unless you know the answer and believe the student to whom you redirect the question also knows the answer.
- Use the technique of refocusing when you want the student to relate a correct answer to another topic. This technique helps students to consider the implications of their response within a broader framework by noting relationships with other topics studied.

SUMMARY

As an instructor, you give an impression to your class from your appearance, speech, habits, questions, and overall manner every time you present a lesson. This impression has a strong impact on the learning process. You must be an enthusiastic, positive motivator in your classroom. You control the energy and dynamics of the learning process. Remembering and applying effective communication and oral questioning techniques will improve your presentations and assist your students in learning the material.